

METHOD, SYSTEM, AND PROGRAM FOR MANAGING DATA
ORGANIZATION

ABSTRACT

5 Provided are a method, system, and program for constructing data including
reconstructing data organized in a data organization type, such as a Redundant Array of
Independent Disks (RAID) organization, for example, which permits data reconstruction.
In one embodiment, blocks of data are transferred from a stripe of data stored across
storage units, such as disk drives in a RAID array, to a logic engine of a storage
10 processor, bypassing the cache memory of the storage processor. A store queue performs
a logic function, such as Exclusive-OR, on each block of data as it is transferred from the
disk drives, to reconstruct a block of data from the stripe. The constructed block of data
may be subsequently transferred to a disk drive of the RAID array to replace a lost block
of data in the stripe of data across the RAID array or to replace an old block of parity
15 data.